



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/016,199

12/11/2001

Heather N. Bean

100110043-1

4347

7590 09/07/2007  
HEWLETT-PACKARD COMPANY  
Intellectual Property Administration  
P.O. Box 272400  
Fort Collins, CO 80527-2400

EXAMINER
----------

HANNETT, JAMES M

ART UNIT	PAPER NUMBER
----------	--------------

2622

MAIL DATE	DELIVERY MODE
-----------	---------------

09/07/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.



UNITED STATES PATENT AND TRADEMARK OFFICE

---

Commissioner for Patents  
United States Patent and Trademark Office  
P.O. Box 1450  
Alexandria, VA 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

**MAILED**

**SEP 07 2007**

**Technology Center 2600**

**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 10/016,199  
Filing Date: December 11, 2001  
Appellant(s): BEAN ET AL.

---

Kyle J. Way  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed 4/25/2006 appealing from the Office action mailed 12/29/2005.

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

5,790,878	Anderson et al	8-1998
6,687,839	Tate et al	2-2004

### **(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

#### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

- 1: Claims 44-58 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 5,790,878 Anderson et al in view of USPN 6,687,839 Tate et al.
- 2: As for Claim 44, Anderson teaches on Column 6, Lines 40-64 allowing the device to operate until a battery failure occurs, the battery failure comprising a condition in which the battery's charge drops below a level required to operate the device. Anderson teaches on Column 6, Lines 44-48 that the predetermined threshold voltage is set to a level incrementally higher than the minimum operating voltage to permit shutdown of the camera. Because the camera of Anderson ceases to work after the threshold voltage is reached, the examiner views the threshold voltage discussed in Anderson to be the voltage level required to operate the device. Anderson teaches on Column 7, Lines 58-67 determining, upon an attempt to restart the device after the battery failure, that the battery has insufficient charge to support further operation of the device. Anderson further teaches on Column 6, Lines 41-64 disabling further operation of the device until the battery has been recharged. Anderson teaches on Column 7, Lines 58-67 and Column 8, Lines 16 that after a power down operation has occurred, if a user attempts to turn on the camera,

the camera senses the battery voltage and determines if the voltage is sufficient and stable enough to turn on the camera. Anderson teaches that if the voltage is not high enough, the CPU prevents the camera from fully powering on and returns to Step (828) in Figure 8. This process of returning to a state in which the camera looks for a wake up signal is viewed by the examiner as a process of shutting down the device. However, Anderson does not teach that the CPU uses residual charge recovered during a brief period between the power down operation and the attempt to wake up the camera to perform this operation.

Tate et al teaches in the abstract and on Column 2, Lines 17-30 That it was well known in the art at the time the invention was made that when a load is removed from a battery, the battery regains some voltage. Tate et al further teaches that it is advantageous to use this residual voltage to perform operations and extend battery life.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the (after power down residual charge build up) as taught by Tate et al to perform the process of returning to a state in which the camera looks for a wake up signal in Anderson et al in order to extend the battery life.

3: In regards to Claim 45, Anderson depicts in Figure 1 and 3 a device, comprising: a battery (358); a circuit to determine a status of the battery (359); a file system (DRAM and 354); and control logic configured to perform a shutdown sequence and prevent further operation of the device, when the status of the battery is unfavorable (Column 6, lines 41-64), and to ensure the integrity of the file system (prevent the loss of data) and startup the device, when the status of the battery is favorable (Column 7, Lines 58-67 and Column 8, Lines 1-33).

Art Unit: 2622

4: As for Claim 46, Anderson teaches that the image memory gets erased when power is not supplied to it. Furthermore, Anderson is configured to detect if a power failure has occurred and notifies the camera system when a power failure occurs. However, Anderson does not teach the method of displaying an error message to a user informing the user that an image file has been corrupted due to power failure.

Official notice is taken that it was well known in the art at the time the invention was made to allow computerized file systems to notify users when a file was corrupted by a sudden power failure and inform the user that un-saved work was lost.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to allow the computerized file system in Anderson to notify the camera user when a file was corrupted by a sudden power failure in order to inform the user that un-saved work was lost.

5: In regards to Claim 47, Anderson depicts in Figure 1 and 3 the device comprises a digital camera.

6: As for Claim 48, Anderson teaches the use of a camera system that automatically turns off the power to a digital camera when the battery voltage drops below a set value. However, Anderson does not teach that the lens on the digital camera is retracted during the shutdown sequence.

Official Notice is taken that it was well known in the art at the time the invention was made to retract the lens of a camera upon shutdown in order to prevent the lens from being damages when the camera is stored.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to retract the lens of a camera in Anderson upon shutdown in order to prevent the lens from being damaged when the camera is stored.

7: In regards to Claim 49, Anderson teaches on Column 6, Lines 40-64 allowing the device to operate until a battery failure occurs, the battery failure comprising a condition in which the battery's charge drops below a level required to operate the device. Anderson teaches on Column 6, Lines 44-48 that the predetermined threshold voltage is set to a level incrementally higher than the minimum operating voltage to permit shutdown of the camera. Because the camera of Anderson ceases to work after the threshold voltage is reached, the examiner views the threshold voltage discussed in Anderson to be the voltage level required to operate the device. Anderson teaches on Column 7, Lines 58-67 determining, upon an attempt to restart the device after the battery failure, that the battery has insufficient charge to support further operation of the device. Anderson further teaches on Column 6, Lines 41-64 disabling further operation of the device until the battery has been recharged. Anderson teaches on Column 7, Lines 58-67 and Column 8, Lines 16 that after a power down operation has occurred, if a user attempts to turn on the camera, the camera senses the battery voltage and determines if the voltage is sufficient and stable enough to turn on the camera. Anderson teaches that if the voltage is not high enough, the CPU prevents the camera from fully powering on and returns to Step (828) in Figure 8. This process of returning to a state in which the camera looks for a wake up signal is viewed by the examiner as a process of shutting down the device. However, Anderson does not teach that the CPU uses residual charge recovered during a brief period between the power down operation and the attempt to wake up the camera to perform this operation.

Tate et al teaches in the abstract and on Column 2, Lines 17-30 That it was well known in the art at the time the invention was made that when a load is removed from a battery, the battery regains some voltage. Tate et al further teaches that it is advantageous to use this residual voltage to perform operations and extend battery life.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the (after power down residual charge build up) as taught by Tate et al to perform the process of returning to a state in which the camera looks for a wake up signal in Anderson et al in order to extend the battery life.

8: As for Claim 50, Anderson depicts in Figure 1 and 3 a device, comprising: a battery (358); a circuit to determine a status of the battery (359); a file system (DRAM and 354); and control logic configured to perform a shutdown sequence and prevent further operation of the device, when the status of the battery is unfavorable (Column 6, lines 41-64), and to ensure the integrity of the file system (prevent the loss of data) and startup the device, when the status of the battery is favorable (Column 7, Lines 58-67 and Column 8, Lines 1-33).

9: In regards to Claim 51, Anderson teaches that the image memory gets erased when power is not supplied to it. Furthermore, Anderson is configured to detect if a power failure has occurred and notifies the camera system when a power failure occurs. However, Anderson does not teach the method of displaying an error message to a user informing the user that an image file has been corrupted due to power failure.

Official notice is taken that it was well known in the art at the time the invention was made to allow computerized file systems to notify users when a file was corrupted by a sudden power failure and inform the user that un-saved work was lost.



Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to allow the computerized file system in Anderson to notify the camera user when a file was corrupted by a sudden power failure in order to inform the user that un-saved work was lost.

10: As for Claim 52, Anderson depicts in Figure 1 and 3 the device comprises a digital camera.

11: In regards to Claim 53, Anderson teaches the use of a camera system that automatically turns off the power to a digital camera when the battery voltage drops below a set value. However, Anderson does not teach that the lens on the digital camera is retracted during the shutdown sequence.

Official Notice is taken that it was well known in the art at the time the invention was made to retract the lens of a camera upon shutdown in order to prevent the lens from being damages when the camera is stored.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to retract the lens of a camera in Anderson upon shutdown in order to prevent the lens from being damages when the camera is stored.

12: As for Claim 54, Anderson teaches on Column 6, lines 41-64, Column 7, Lines 58-67 and Column 8, Lines 1-33 the control logic comprises a shutdown bit to detect when the device has experienced a battery failure.

13: In regards to Claim 55, Anderson teaches on Column 6, lines 41-64, Column 7, Lines 58-67 and Column 8, Lines 1-33 the control logic comprises a disable bit (PFAIL BIT) to prevent the device from being operated when the status of the battery is unfavorable.

14: As for Claim 56, Anderson teaches on Column 6, Lines 40-64 allowing the device to operate until a battery failure occurs, the battery failure comprising a condition in which the battery's charge drops below a level required to operate the device. Anderson teaches on Column 6, Lines 44-48 that the predetermined threshold voltage is set to a level incrementally higher than the minimum operating voltage to permit shutdown of the camera. Because the camera of Anderson ceases to work after the threshold voltage is reached, the examiner views the threshold voltage discussed in Anderson to be the voltage level required to operate the device. Anderson teaches on Column 7, Lines 58-67 determining, upon an attempt to restart the device after the battery failure, that the battery has insufficient charge to support further operation of the device. Anderson further teaches on Column 6, Lines 41-64 disabling further operation of the device until the battery has been recharged. Anderson teaches on Column 7, Lines 58-67 and Column 8, Lines 16 that after a power down operation has occurred, if a user attempts to turn on the camera, the camera senses the battery voltage and determines if the voltage is sufficient and stable enough to turn on the camera. Anderson teaches that if the voltage is not high enough, the CPU prevents the camera from fully powering on and returns to Step (828) in Figure 8. This process of returning to a state in which the camera looks for a wake up signal is viewed by the examiner as a process of shutting down the device. However, Anderson does not teach that the CPU uses residual charge recovered during a brief period between the power down operation and the attempt to wake up the camera to perform this operation.

Tate et al teaches in the abstract and on Column 2, Lines 17-30 That it was well known in the art at the time the invention was made that when a load is removed from a battery, the battery

regains some voltage. Tate et al further teaches that it is advantageous to use this residual voltage to perform operations and extend battery life.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the (after power down residual charge build up) as taught by Tate et al to perform the process of returning to a state in which the camera looks for a wake up signal in Anderson et al in order to extend the battery life.

15: In regards to Claim 57, Anderson depicts in Figure 1 and 3 a device, comprising: a battery (358); a circuit to determine a status of the battery (359); a file system (DRAM and 354); and control logic configured to perform a shutdown sequence and prevent further operation of the device, when the status of the battery is unfavorable (Column 6, lines 41-64), and to ensure the integrity of the file system (prevent the loss of data) and startup the device, when the status of the battery is favorable (Column 7, Lines 58-67 and Column 8, Lines 1-33).

16: As for Claim 58, Anderson teaches that the image memory gets erased when power is not supplied to it. Furthermore, Anderson is configured to detect if a power failure has occurred and notifies the camera system when a power failure occurs. However, Anderson does not teach the method of displaying an error message to a user informing the user that an image file has been corrupted due to power failure.

Official notice is taken that it was well known in the art at the time the invention was made to allow computerized file systems to notify users when a file was corrupted by a sudden power failure and inform the user that un-saved work was lost.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to allow the computerized file system in Anderson to notify the camera user

when a file was corrupted by a sudden power failure in order to inform the user that un-saved work was lost.

**(10) Response to Argument**

The appellant argues that Anderson does not teach or suggest allowing a device to operate until battery failure occurs, the battery failure comprising a condition in which the batteries charge drops below a level required to operate the device. The appellant further points out correctly that Anderson teaches allowing a camera to operate until the battery voltage drops below a level required to operate the camera. This level being set at a predetermined voltage that is incrementally higher than a minimum operating voltage (Column 6, Lines 45-47).

Furthermore, The appellant argues that because Anderson shuts down the camera when the voltage level drops below the set threshold value and since the threshold value set in Anderson is incrementally higher than a minimum operating voltage, the camera does not operate until the battery voltage drops below a level required to operate the device. Therefore, the applicant asserts that the prior art does not teach the claimed invention.

The examiner disagrees with the applicant. Anderson sets a threshold value that is incrementally higher than a minimum operating voltage (to permit orderly shutdown of the camera 110 processes). Although the camera of Anderson shuts down the camera prior to the batteries voltage dropping below this threshold, the examiner asserts that battery failure has occurred. Anderson teaches on Column 2, Lines 18-40 that the power manager monitors the voltage to detect a power failure within the camera and specifies that this power failure occurs when the power is less than a specified threshold. Furthermore, the examiner points out that in the claims of the present invention, the same process is claimed. The appellant claims in Claim

Art Unit: 2622

44 “allowing the device to operate until a battery failure occurs, the battery failure comprising a condition in which the battery’s charge drops below a level required to operate the device”

Furthermore in Claim 44 the appellant claims “shutting down the device properly using residual charge in the battery”. Anderson teaches shutting down the camera prior to a voltage being reached that would prevent the camera from shutting down properly. Furthermore, the present invention shuts down the camera with residual charge stored in the battery that is sufficient to shut down the device. Therefore, The examiner asserts that Anderson teaches allowing the device to operate until battery failure has occurred, wherein the battery failure occurs when the charge drops below the set threshold. The examiner further asserts that the claim does not specify that the battery voltage needs to drop below a level required to properly shut down the camera and broadly claims “dropping below a level required to operate the device”.

**(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner’s answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

James M. Hannett  
Patent Examiner  
Art Unit 2622



Conferees:

Lin Ye: Supervisory Patent Examiner 2622



Ngoc Yen Vu: Supervisory Patent Examiner 2622

